

Specific heat (C_p)

the amount of heat
required to raise the temp
of 1 kg of a substance
by 1°C

$$Q = m C_p \Delta T$$
$$J = \frac{\text{kg} \cdot J}{\text{kg} \cdot ^\circ\text{C}} ^\circ\text{C}$$

$$C_p \text{ glass} = .84 \text{ J/kg}^\circ\text{C}$$

$$C_p \text{ water} = 4.18$$

$$4 \left\{ C_p \text{ copper} = .386 \right.$$

$$\left\{ C_p \text{ Gold} = .126 \right.$$

$$C_p \text{ Dry Air} = 1.013$$

$$C_p \text{ wet Air} = 1.01$$

$$* C_p \text{ cotton} = 1.26 \text{ J/kg}^\circ\text{C}$$

* Best insulator

4 Best conductors

higher C_p = best INSULATOR
Lower C_p = WORST INSULATOR

higher C_p = WORST CONDUCTOR
Lower C_p = best CONDUCTOR

ENDOThermic
HEAT ENTERS A SYSTEM

EXOThermic
HEAT EXITS A SYSTEM

EXOTHERMIC
MARSHMALLOW

mouth
ENDOTHERMIC

MARSHMALLOW ENDOTHERMIC



CAMP FIRE IS EXOThermic